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STATEMENT OF WORK FOR SECURE VIDEO TELECONFERENCING SYSTEM (SVTS)

MAINTENANCE AND ENGINEERING SUPPORT

Prepared by

DEFENSE INFORMATION SYSTEMS AGENCY

CODE JEECC

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FOR
SECURE VIDEO TELECONFERENCING SYSTEM (SVTS)
ENGINEERING SUPPORT AND MAINTENANCE

1.0 (U) **SCOPE**.

1.1 (U) **BACKGROUND**. The SVTS is a dedicated, high performance network that enables multi-media teleconferencing. The network was designed with an evolutionary engineering approach to enable incremental technology insertion and modernization without interruption of service. The network services provide secure exchange of high-interest, time-sensitive information among top-level decision makers. SVTS provides integrated secure services for exchange of full motion video, voice, graphics, and data at SVTS fixed facilities and mobile units. The SVTS architecture relies on commercial off the shelf products that are controlled by custom developed software. Centralized network control provides operations oversight for SVTS through integrated network management tools that detect and isolate faults for critical network components.

1.2 (U) **GENERAL DESCRIPTION**. The contractor shall provide maintenance and engineering support to ensure continued reliability and availability of services to all SVTS fixed facilities, mobile units, and the network control hub. Engineering support will focus on evolution and modernization of technical capabilities to maximize network performance and interoperability. It is anticipated that the engineering support will constitute approximately 80% of the total dollar value of the contract.

1.2.1 (U) **MAINTENANCE**. The contractor shall provide 24 hours/ day, 7 days/ week, on-call maintenance for all SVTS hardware and software components, including the two sites located outside the Washington Metropolitan Area, and the Design, Engineering, & Integration (DE&I) Facility. The contractor shall also provide preventive maintenance on a regularly scheduled basis that accomodates SVTS users and their operational schedules. The contractor shall purchase materials and spare parts to support the maintenance effort and shall house and manage the maintenance depot facility that supplies and stores SVTS replacement parts. Specific maintenance requirements are included in section 3.1.

1.2.2 (U) **ENGINEERING SUPPORT**. The contractor shall provide engineering support for the design, development,

integration, test, installation, training, and documentation of all extensions to the SVTS network. The contractor shall also provide engineering support for the design, development, integration, test, procurement, installation, training, and documentation of SVTS modifications to correct latent defects or to insert new technology. The contractor shall purchase equipment, parts, and materials as necessary to support this work; such purchases will be specified on Task Orders which will be written against this contract. The contractor shall house and manage the SVTS Development, Engineering, and Integration Lab for engineering analyses and prototyping. Specific requirements are included in Section 3.2.

2.0 (U) **APPLICABLE DOCUMENTS**. The reference documents listed in Appendix A will be available for contractor review. In the event of conflict between the documents referenced herein and the contents of this SOW, the SOW shall govern and the contractor shall immediately bring any discrepancy to the attention of the Contracting Officer (CO).

3.0 (U) **REQUIREMENTS**.

3.1 (U) **MAINTENANCE AND LOGISTICS SUPPORT**.

3.1.1 (U) **CONTRACTOR RESPONSIBILITY**.

3.1.1.1 (U) **SYSTEM MAINTENANCE**. The contractor shall perform system maintenance for the SVTS. System Maintenance consists of all hardware and software maintenance for all the SVTS nodes fixed and transportable, the HUB, the Development, Engineering and Integration Facility (see Appendix C - System Equipment List and Appendix H – List of Maintenance Spares). Maintenance shall be performed within prescribed time limits and the maintenance details shall be recorded in the site's and the Hub's maintenance log at the conclusion of each maintenance visit. The contractor shall maintain all items contained within or part of the SVTS enclosures (node console area, node equipment support area (ESA), gateways, and the Hub) except as stated in paragraph 3.1.2 (Government Responsibility) and for user-provided furniture, equipment, etc. Contractors implemented design changes shall be automatically encompassed in system maintenance and the Availability Requirements Provision (Appendix D). System maintenance shall be based on the system operational requirement of 24 hours per day, 7 days per week and the contractor shall ensure system availability as per Appendix D.

3.1.1.1.1 (U) **ON-CALL MAINTENANCE**. The contractor shall provide on-call maintenance 24 hours per day, 7 days per week, for hardware and software problems. The contractor shall respond

to on-call maintenance requests within 60 minutes during Government duty hours. During off-duty hours, the contractor will be allowed an additional 60 minutes (totaling 120 minutes) to respond. The contractor's response time is detailed in Appendix D. The contractor shall be responsible for performing all troubleshooting and applicable maintenance in conjunction with a Hub maintenance (request) ticket.

3.1.1.1.2 (U) **FACILITY MAINTENANCE**. The Contractor shall provide maintenance for the SVTS Uninterruptable Power Supply (UPS) Systems, and the SVTS Air Conditioning (A/C) systems at sites listed here. The contractor shall maintain UPS at Sites 1, 2, 5, 11, 12, 13, 14, 15, and 16. The contractor shall maintain A/C systems at Sites 1, 16, and 17. The contractor shall also provide maintenance for the portable A/C unit currently located at Sites 5/12/13 UPS room. The contractor shall remove all debris resulting from the maintenance activity prior to departing the site.

3.1.1.1.3 (U) **MAINTENANCE DEPOT**. The contractor shall provide and maintain a storage facility for maintenance spares, faulty module and equipment testing, limited cable build/repair capability, and excess material storage. The contractor shall furnish and maintain at the depot all tools, support equipment, test equipment, and technical literature necessary to maintain/repair the SVTS system in accordance with the approved Maintenance Support Plan (see paragraph 3.3.2).

3.1.1.1.3.1 (U) The contractor shall provide a controlled and audited storage space for system maintenance spares with a recommended minimum size of 1000 square feet.

3.1.1.1.3.2 (U) The contractor shall provide a controlled and audited storage space for residual (excess) materials with a recommended minimum size of 1000 square feet. The contractor shall dispose of excess material in accordance with Government regulations.

3.1.1.1.3.3 (U) The contractor shall provide a test area for faulty module and equipment testing and limited cable build/ repair capability with a recommended minimum size of 1000 square feet.

3.1.1.1.3.4 (U) The contractor shall provide a staging area with a recommended minimum size of 500 square feet.

3.1.1.2 (U) **HARDWARE MAINTENANCE**.

3.1.1.2.1 (U) **CORRECTIVE MAINTENANCE**. The contractor shall provide corrective maintenance, to include fault isolation and testing, equipment adjustments, printed circuit board (PCB) and component replacements/repairs, emergency repairs, and restoration of service. The contractor shall not reboot or recycle power to equipment or reset component cards during failure conditions without first troubleshooting, doing error analysis, and attempting to determine the cause of the failure, unless the reboot, recycle, or reset is necessary to set up an impending conference. After corrective action, the contractor shall conduct a test to ensure the system is operational prior to leaving the site. The contractor shall keep the site personnel informed of corrective actions taken and system status by recording the maintenance performed in the maintenance log kept at each site and the Hub and the Software Development Facility.

3.1.1.2.1.1 (U) **EMI TESTING & RESTORATION**. The contractor shall establish an EMI Test Plan for Government approval in accordance with MIL-STD-461/462. The contractor shall perform Electromagnetic Interference (EMI) tests at one user site and restore this site as necessary. The contractor shall test this site, at least semiannually. Tests shall be performed in accordance with MIL-STD-285/461/462, using Government furnished EMI test sets. Test results shall be recorded and evaluated on site, and the minimum attenuation calculated. Test results shall be provided to the Government. Racks and enclosures shall meet the site accredited attenuation requirements of a minimum of 40 db attenuation across the 200 MHz to 1 GHz spectrum for equipment racks, and a minimum of 40 db attenuation (narrow band test at 464 MHz) for enclosures. Testing/restoration at the site should not exceed 72 hours per test and restoration cycle and may require weekend schedules for the HUB and some sites. The contractor shall coordinate test schedules and procedures with the Government. The contractor shall maintain and calibrate (as required) the EMI test sets furnished by the Government.

3.1.1.2.1.2 (U) **VENDOR SUPPORT**. The contractor shall obtain on-call vendor technical assistance/service for critical SVTS hardware components, such as computer platforms, the Hub switch, codecs, audio/video switches, etc., until the government decides that the assistance/service is no longer required.

3.1.1.2.2 (U) **PREVENTIVE MAINTENANCE**. The contractor shall establish procedures for and shall follow a schedule of regular preventive maintenance (PM), based on the specific needs of the contractor-maintained equipment (see Appendix E - 1997 PM Schedule). Preventive maintenance schedules shall be coordinated with and provided to the Government. Preventive maintenance on

any part of the system shall not require an out-of-service condition in excess of the requirements specified in the Availability Requirements Provision. The contractor shall record preventive maintenance details in the site's and the Hub's maintenance log at the conclusion of each preventive maintenance visit. The preventive maintenance schedule shall be adjusted or modified whenever necessary to accommodate the operational requirements of the SVTS users.

3.1.1.3 (U) **SOFTWARE MAINTENANCE**. The SVTS software is currently written in DEC VAX PASCAL, BORLAND TURBO PASCAL the knowledge-based engineering language GENSYM G2, and DEC DCL operating system-level command interpreter (script) language. Additionally, the COTS software packages used in the system are listed in paragraph 2 of Appendix C. The contractor shall provide 24 hours per day, 7 days per week, on-call software maintenance support for all software problems. The contractor shall respond to software problems within the time limits specified in paragraph 3.1.1.1. The contractor shall provide software maintenance support to correct any software related malfunctions, design errors, logic errors, or implementation flaws. In the case of software errors which cause system failures or failures in system services, the contractor shall take immediate remedial actions to correct or circumvent the problem. The contractor shall follow the Software Procedures outlined in Appendix E when performing emergency software maintenance. The contractor shall make no immediate field changes to software or immediate changes to system startup parameters without prior approval of the Government. The contractor shall keep up to date with published deficiencies, problems, solutions, patches and workarounds for all SVTS COTS software, to include the SVTS operating system and all other COTS software in use in the SVTS. The contractor shall keep the government apprised of this information (CDRL 010, “Software Trouble Report (STR”) and shall indicate which items may impact SVTS operations. The government may require selected items to be included in the STR process.

3.1.1.3.1 (U) **SOFTWARE ERROR CORRECTIONS**. The contractor shall open a Software Trouble Report (STR) to document all software problems, as well as to initiate and track the effort to correct software problems. No software maintenance development or coding shall be conducted until a STR has been opened and approved by the Government. The procedures for generating STRs and for managing software maintenance problems are found in the Configuration Management and Software Management Plan (Appendix G). The Government will determine whether the problem identified in the STR has resulted or could result in a failure which critically impacts SVTS operations (e.g., problems which can cause to-

tal system failure, failure of system functional capabilities, failure impacting upon system security, or failure of system control elements which preclude use of the system, functional capabilities, or system controls). If the Government determines that the problem correction is critical to SVTS operations, then the contractor shall determine a solution, modify and test the code, and install the corrected code in the field following the release procedures in the Appendix G within 48 hours. In the case of failures which impact system security, the contractor shall implement the change immediately. The contractor shall make no immediate field changes to software or immediate changes to system startup parameters without approval of the Government. If the Government determines that the software problem is not critical, the contractor shall install the correction as part of a regularly scheduled software release. Historically, during the period 1989-1997, there has been an average of 20 STRs annually. Of those 20 STRS, an average of three STRs has been determined to be critical. The contractor shall ensure that all newly devel- oped software is completely compatible with existing code, in-cluding the operating system.

3.1.1.3.2 (U) **SOFTWARE RELEASES**. The Government may require the contractor to install up to three software releases per year.

3.1.1.3.3 (U) **SVTS-OFF-THE-SHELF SOFTWARE UPGRADES**. SVTS off-the-shelf software is all government or commercially supplied software used in the SVTS network, the DE&I laboratory, and SVTS engineering development, such as operating systems, development tools, and applications. The contractor shall review all new releases for SVTS off-the-shelf software and shall inform the government of the impacts and benefits of the new release. The contractor shall ensure that all SVTS off-the-shelf software versions are updated and kept current, as necessary, and that required licenses are obtained. The contractor shall maintain these licenses until the Government determines that they are no longer required. If any SVTS-off-the-shelf software OEM provides on-call technical support as an option, the contractor shall include that option in the purchase or lease agreement until the government decides that support is no longer required. The contractor shall replace any SVTS off-the-shelf software with comparable software when the vendor no longer provides adequate support. When implementing the software upgrades, the contractor shall integrate the new software with the existing SVTS hardware and software. Testing and government approval are required prior to fielding software releases IAW Appendix G. It is estimated that each SVTS off-the-shelf software package must be upgraded (or a new release fielded) throughout the SVTS network at least

once every two years.

3.1.1.4 (U) **INVENTORIES**. The contractor shall maintain appropriate inventories of all spares and equipment. This shall be done for the equipment at the SVTS sites, the DE&I Facility, and the Software Development Facility. Refer to paragraph 3.7.1.(3) for information about the required spare parts inventory.

3.1.1.5 (U) **MONTHLY MAINTENANCE REPORT**. The contractor shall provide a monthly maintenance report. The monthly maintenance report shall consist of a copy of all maintenance tickets opened for the month, all tickets still opened from previous months, all STRs for the month, statistics for the month, statistics for the past four months, statistics for the past 12 months, statistics for the year to date, a summary of the significant maintenance items for the month, analysis of important system failure(s) during the month, and any other significant information. The contractor shall also update the list of opened STRs, and provide the current status of STRs. With the monthly maintenance report, the contractor shall include the updated maintenance support database (see paragraph 3.3.2.2) on diskette(s). See Appendix D for details of the monthly maintenance report.

3.1.1.5.1 (U) **MAINTENANCE TICKETS**. Maintenance tickets are only applicable for maintenance actions performed in whole or in part by the contractor or his subcontractors. Maintenance tickets will be opened for both hardware and software maintenance requests. See Appendix D.

3.1.1.6 (U) **ANNUAL MAINTENANCE REPORT**. The contractor shall provide an annual maintenance report. The report shall cover maintenance items for the past fiscal year. The report shall consist of, at a minimum, the following:

a. Statistics for the year

b. Summary of significant maintenance items for the Year. Significant maintenance items here are defined as any Category 1 tickets (see Appendix D for definition of Category 1).

c. Analysis of important system failure(s) during the year. Important system failure here is defined as

any Category 1 problem.

d. Any other significant information

e. Equipment listing of all sites including the Hub

f. Cable diagrams of all sites including the Hub

g. Rack elevation of all sites including the Hub

h. Spares listing

i. Listing of spares used the past year

j. Listing of all equipment manuals.

3.1.2 (U) **GOVERNMENT RESPONSIBILITY**.

3.1.2.1 (U) **CRYPTOGRAPHIC EQUIPMENT MAINTENANCE**. The Government shall perform all maintenance for communications security equipment (excluding the power supplies). However, the contractor shall perform the work of removing defective equipment and replacing it with functional equipment.

3.1.2.2 (U) **FACILITY MAINTENANCE.** The Government shall provide maintenance for facility power, including UPS, and A/C systems at sites listed here. The Government shall maintain UPS for the SVTS at sites 3, 4, 6, 8, 10, and 17. The Government shall maintain A/C systems for the SVTS at sites 2, 3, 4, 5, 6, 8, 10, 11, 12, 13, 14, and 15. The contractor shall maintain UPS and A/C systems at all other sites as specified in the paragraph. The Government will also maintain Facility expendables (light bulbs, paper, etc) and be responsible for the cleanliness of the rooms.

3.1.2.3 (U) **TRANSMISSION SYSTEM**. The Government shall provide for maintenance as required on the Government-provided leased carrier systems.

3.2 (U) **SYSTEM CHANGES**.

3.2.1 (U) **GENERAL**. The Government shall develop task orders for specific changes to the SVTS. Each such task shall be negotiated separately by the Government and the contractor. For each task, the contractor shall develop hardware and software designs and integrate these new designs with the existing SVTS network design; conduct hardware and software design reviews; prepare plans and procedures; purchase and install hardware and software; conduct acceptance tests and training; follow

established Configuration Management (CM) procedures. All system changes shall automatically be included in SVTS maintenance. In the majority of cases, the Government should be able to predict tasks six months to a year in advance; however, the contractor shall also be prepared to execute tasks with short notice (one to three months).

3.2.2 (U) All changes to the SVTS shall be done IAW the Defense Information Infrastructure (DII) Common Operating Environment (COE) standards, unless the government waives this requirement for a specific task. This information is available at: http://spider.osfl.disa.mil/dii/

3.2.3 (U) **COMPATIBILITY**. The contractor shall be responsible for modifying the SVTS software to be compatible with any SVTS hardware changes in conjunction with a new requirement and vice versa. The implementation of a system change shall not cause degradation to the SVTS.

3.2.4 (U) **TRAINING**. The contractor shall conduct initial familiarization training for system users and hub controllers on all new hardware and software changes.

3.3 (U) **MANAGEMENT**.

3.3.1 (U) **MANAGEMENT PLAN**. The successful offeror shall submit a final management plan within two weeks of date of award. The contractor shall manage the work under this contract IAW the approved plan. The plan shall address the contractor=s process/procedure to ensure hardware and software system engineering personnel are ready to solve complex SVTS problems 24 hours per day, 7 days per week. The contractor's management plan will also provide a single point of contact for engineering and a single point of contact for maintenance.

3.3.2 (U) **MAINTENANCE SUPPORT PLAN**. The contractor=s proposal shall include a Maintenance Support Plan. The Maintenance Support Plan will be responsive to the requirements identified below. The plan shall provide procedures for correcting, recording, and reporting hardware and software discrepancies that have been identified; analyzing problem causes and identifying solutions; and tracking outstanding discrepancies for which solutions are being developed but are not yet implemented. Included in the Maintenance Support Plan shall be provisions for reliability, availability and maintainability (RAM) program using the same type of database management software which is available on the government=s DISANet Local Area Network (LAN), currently BORLAND=s Paradox for Windows, version 7.0. The

government reserves the right to make changes to the successful offeror's Maintenance Support Plan (which is submitted with the proposal). The successful offeror shall submit the final Maintenance Support Plan, which incorporates the government changes, within 30 days after the contract award. The contractor=s maintenance support shall be IAW with the approved plan.

3.3.2.1 (U) **ORGANIZATION**. The contractor shall provide a fully auditable FAR-compliant material handling system (see FAR Part 45, which can be obtained from URL http://farsite.hill.af.mil/reghtml/far/45.htm). The contractor shall provide auditable record keeping and control for system spares inventory, module repairs, module tracking and up- grades, COTS software tracking and upgrades, maintenance data and reports, software releases, engineering changes, etc., as well as equipment and software installed at the sites. The contractor shall specify how this data will be incorporated into the maintenance support database and kept current. The contractor shall ensure that RAM requirements are met by subcontractors and suppliers. All databases and records created in support of the SVTS project are owned by the Government.

3.3.2.2 (U) **MAINTENANCE SUPPORT DATABASE**. The contractor shall develop and maintain a maintenance database using the same type of database management software which is available on the government=s DISANet Local Area Network (LAN), currently BORLAND=s Paradox for Windows, version 7.0. The contractor shall keep this database current and provide updated diskettes to the Government as part of the monthly maintenance report. The database shall include the data in the maintenance tickets (see Appendix D). The contractor shall use this database to create statistical reports and analyses. The generation of reports shall be responsive to system status, statistical generation, graphics generation, and maintenance short term/long term analysis by the contractor and DISA. The database and all associated files (forms, queries, tables, etc.) are deliverables and, thus, are government

3.4 (U) **PERSONNEL**.

3.4.1 (U) **SECURITY CLEARANCES**. All contractor personnel must satisfy security clearance requirements listed in paragraph 3.5.

3.4.2 (U) **GENERAL**. The contractor shall ensure that all services under this contract are performed by competent,

experienced and highly qualified personnel, to provide required services in accordance with the best commercial practices, and without unnecessary delays or interference with Government functions. The contractor shall provide evidence of his ability to supply personnel, both in necessary numbers and experience, to perform the required maintenance and engineering services. Through the life of the contract the contractor shall maintain and provide to the Government a current resume file on all personnel providing service under this contract. As part of this requirement the Contractor shall provide resumes of personal qualifications, including security clearance, training and experience of personnel working on this contract as part of the original proposal. The Government will review all resumes and approve those which satisfy the government=s requirements. It shall be the responsibility of the contractor to select personnel who are fully qualified to provide the services required by this contract, supervise employee's work, and keep employees fully trained and cognizant of all improvements, changes, and new methods of operation.

3.4.3 (U) **TECHNICAL STAFF**. The tasks in this statement of work shall require a resident core technical staff composed of a broad spectrum of information systems professionals. The contractor shall have in-house expertise on architectural, electrical and mechanical maintenance and design including but not limited to UPS, power distribution, security alarms, fire detection and suppression systems, A/C systems, shielded enclosure systems, audio/video design (including lighting and acoustic considerations), and electronics system engineering (common video/data teleconferencing etc.). Prior to arriving on site the contractor's employees shall meet the qualifications and professional certifications for the position to which assigned A description of duties and minimum professional experience requirements are defined for each labor category as follows:

3.4.3.1 (U) **PROGRAM MANAGER**. Serves as the contractor's contract manager, and shall be the contractor's authorized point of contact with the Government Contracting Officer (CO) and the Contracting Officer's Representative (COR). Interfaces with Government management personnel and contract managers. Responsible for formulating and enforcing work standards, assigning contractor schedules, and reviewing work discrepancies. Responsible for and communicating policies, purposes, and goals of the organization to subordinates. Shall be available to manage contract performance and shall not serve in any other capacity under this contract. A minimum of 10 years experience is required for this position. Six years must be specialized experience. The remainder may be specialized or general

experience. Six years specialized experience is required in complete engineering project development from inception to deployment, with a demonstrated ability to provide guidance and direction in the tasks similar to the sample tasks provided in this Statement of Work. Proven expertise in the management and control of funds and resources must also be shown. The Program Manager shall also have demonstrated capability in the overall management of multi-task contracts of this type and/or complexity. Ten years of progressively responsible general experience is required in both information systems design and management.

3.4.3.2 (U) **PROJECT MANAGER**. Provides supervisory, technical, and administrative direction for personnel performing on a task. A minimum of 6 years experience is required for this position. Four years must be specialized experience. The remainder may be specialized or general experience. Four years specialized experience is required in a complete project development, from inception to deployment, including supervisory experience. General Experience is experience in Information Systems project management.

3.4.3.3 (U) **SENIOR SYSTEMS ENGINEER**. Must be capable of analyzing system requirements to develop and document overall system design, consulting with users and technical staff on relative merits of alternative design approaches, developing system development strategies, performing trade studies, preparing development and test plans, and allocating system requirements to hardware and software components. Must be capable of analyzing and recommending commercially available software and hardware components capable of meeting system requirements. Must be capable of performing systems integration. Must be capable of determining life cycle logistics support requirements and ensuring that logistics support requirement is incorporated in system design. Must be familiar with MIL-STD-973 and the DII COE. Must have experience with embedded software systems. Must be familiar with network management and engineering. Must have at least 7 years experience as a system engineer. Must have a bachelor's degree from an accredited university in computer science, software engineering, electrical engineering or a related program.

3.4.3.4 (U) **SYSTEMS ENGINEER**. Must be capable of analyzing system requirements to develop and document overall system design, consulting with users and technical staff on relative merits of alternative design approaches, developing system development strategies, performing trade studies, preparing development and test plans, and allocating system requirements to

hardware and software components. Must be capable of analyzing and recommending commercially available software and hardware components capable of meeting system requirements, performing systems integration and determining life cycle logistics support requirements and ensuring that logistics support requirements are incorporated in system design. Must be familiar with MIL-STD-973 and the DII COE. Must have experience with embedded software systems. Must have at least three 3 years experience as a system engineer. Must have a bachelor's degree from an accredited university in computer science, software engineering, electrical engineering or a related program.

3.4.3.5 (U) **SENIOR SOFTWARE ENGINEER**. Must be capable of developing, maintaining, and managing a large-scale software program in accordance with (IAW) Government software engineering standards. Must be familiar with MIL-STD-498, MIL-STD-973 and the DII COE. Must have skill in systems analysis, software design, and software development using formal specifications, state machine diagrams or other commonly accepted design techniques, and computer aided software engineering (CASE) tools for large, complex software programs and embedded software systems. Must be capable of estimating schedules and software development costs, and software life cycle management. Overseeing software configuration management, interpreting software requirements and design specifications, managing integration and software test activities. Must have experience in large scale software development using PASCAL or a similar structured programming language. Must have experience with networked workstations and servers running under complex, multi-users operating systems (NOTE: Currently, the SVTS uses Digital Equipment Corporation (DEC) VMS with DECnet control.) mini and microcomputers running under DEC VMS with DECnet control. Must have knowledge of DEC Configuration Management Software (CMS). Must have experience with expert systems technology. Must have at least 6 years experience in managing or performing software engineering activities, including at least 3 years experience programming in PASCAL a similar structured programming language. Knowledge of C, C++, Java, HTML, UNIX, and Microsoft NT is highly desirable, because one or more of these may be required in the future. Must have a bachelor's degree from an accredited university in computer science, or a related program.

3.4.3.6 (U) **SOFTWARE ENGINEER**. Must be capable of interpreting software requirements and design specification to code, integrate, and test software components. Must be familiar with MIL-STD-498, MIL-STD-973 and the DII COE. Must have experience in designing and developing software in PASCAL or a similar structured programming language. Must have experience

with networked workstations and servers running under complex, robust, multi-users operating systems. (NOTE: Currently, the SVTS uses Digital Equipment Corporation (DEC) VMS with DECNet control.) Must have experience in the maintenance of software code, database packages and utility programs. Must be able to modify existing code and create special purpose software while ensuring system efficiency and integrity. Must have at least 3 years experience as a software engineer, including at least 2 years experience programming in PASCAL or a similar structured programming language. Must have a bachelor's degree from an accredited university in computer science, or a related program.

3.4.3.7 (U) **EQUIPMENT INSTALLER**. Must be capable of performing maintenance on system hardware components. A minimum or 7 years experience is required for this position. Must be experienced in installing, testing, operating, and maintaining network and computer (host) communications equipment (e.g., switcher, modems, controllers, terminals, and multiplexers), experience using and implementing communication hardware and electrical standards, and experience using communication hardware tests and monitoring equipment and analyzing the results. General experience is experience in using and managing network and telecommunications equipment.

3.4.3.8 (U) **LEAD SENIOR SYSTEMS ENGINEER**. Requires Bachelors degree in Computer Science or Engineering and fifteen or more years of applicable complex systems design experience, including hardware-software integration of complex systems. Develops and applies advanced methods theories and research techniques in investigation and solution of complex and difficult system design requirements and problems requiring the expert application of advanced knowledge. Plans, conducts and technically directs projects or major phases of significant projects, coordinating the efforts of engineers and technical support staff in the performance of assigned projects. Conducts investigations and tests of considerable complexity. Reviews literature, patents and current practices relevant to the solution of assigned projects. Reviews completion and implementation of system additions and/or enhancements and recommends corrections in technical application and analysis to management. Evaluates vendor capabilities to provide required products or services. Provides technical consultation to other organizations. May provide work leadership for lower level employees.

3.4.3.9 (U) **LEAD SENIOR SOFTWARE ENGINEER.** Requires Bachelors Degree in Computer Science or a related field with nine or more year’s applicable software design engineering experience.

Develops and applies advanced methods, theories and research techniques in the investigation and solution of complex and advanced software applications and problems. Plans, conducts and technically directs projects or major phases of significant projects, coordinating the efforts of technical support staff in the performance of assigned projects. Conducts investigations and tests of considerable complexity. Reviews literature, patents and current practices relevant to the solution of assigned projects. Reviews completion and implementation of technical products. Evaluates vendor capabilities to provide required products or services. May provide technical consultation to other organizations and work leadership to lower level employees. Excludes those whose responsibilities are primarily in applications programming.

3.4.3.10 (U) **DATABASE ADMINISTRATOR**. Requires a Bachelors Degree in Computer Science or related field and minimum two years experience in administration of Paradox on networked System. Knowledge of NT based operating system is required as is the ability to work in a team environment Provide paradox database and repository administration functions for a software development and production environment consisting of NT, DEC VAX operating systems. Responsibilities include Database development, installation and support, database configuration and capacity planning, as well as Database performance monitoring and tuning. Incumbent shall establish, monitor and enforce database Administrator's standards and guidelines and administer the repository/maintenance, backup, and recovery procedures..

3.4.3.11 (U) **SYSTEMS ADMINISTRATOR**. Requires minimum of two years experience in administrative support of Windows networked NT and VAX computers as well as experience in the installation and configuration of Windows NT servers and workstations in an operational environment. Responsible for providing high-level system administration support for networked VAX and NT computing environments. Primary responsibility include installing and maintaining operating systems environments, which includes installation, user account maintenance, backup and retrieval, and trouble shooting operating systems problems

3.4.3.12 (U) **DESIGNER.** Requires associate degree or equivalent trade school training with emphasis in drafting techniques and/or electronics or mechanics. Minimum of five years drafting and design experience, including a minimum of two years design work. Proficient in use of all applicable CAD equipment. Knowledgeable of all applicable mil-spec/standards. Under general supervision and with considerable latitude for

independent contribution, works from rough engineering notes, drawings, sketches and verbal instructions to create complex electronic and/or mechanical designs and layouts. Designs or modifies existing designs to develop or improve products or facilitate manufacturing operations. Determines design characteristics such as PC board path layout and component configuration, internal and external packaging, panel control layouts, functional configuration and chassis/frame design. Investigates pertinent design factors such as ease of manufacture, availability of materials, tooling and equipment, interchangeability, replaceability and serviceability. Coordinates with other organizations affected by design development. Makes layouts and drawings to clarify completeness, conformity to standards, procedures, specifications, accuracy of calculations and dimensions. Gathers and analyzes information, makes studies and performs research regarding materials or parts needed for design by using applicable handbook data and good working knowledge of available standard parts/components.

3.4.3.13 (U) **SENIOR DESIGNER**. **???**Requires associate degree or equivalent trade school training with emphasis in drafting techniques and/or electronics or mechanics and eight years of progressively more complex experience including five years of advanced design concepts and applications.**?**Proficient in us e of all applicable CAD equipment.**?**Knowledgeable of all applicable mil-spec/standards. Designs and executes layouts of complex products and equipment of an electrical or mechanical nature. Complexity of assignments requires the exercise of considerable initiative, latitude, independent judgment and the ability to design independently with only general technical direction. Performs original design work after receiving the design goal or problem with general method of processing and engineering advice on related theoretical aspects to be taken into account in the design. Design work requires individual creativity, application of advanced drafting techniques and thorough knowledge of practical fabrication techniques. May require the solution of routine engineering problems including simple stress analysis, heat transfer, vibration, acoustic isolation, strength/weight efficiency, availability of materials, ease of fabrication, interchangeability and problems of related complexity. Prepares cost estimates for entire project or piece of the equipment. May direct lower level designers and drafters coordinating, assigning and checking their work.

3.4.3.14 (U) **CONFIGURATION MANAGEMENT ADMINISTRATOR**. Requires Bachelors degree in Business Administration or a related field and eight years configuration analysis experience. Designs and establishes configuration management documentation.

Authorizes the release of drawings and changes specified by program management and other functional groups. May act as a liaison between program management and other functional groups to resolve issues regarding configuration analysis documentation. Provides advice and guidance on methods, procedures and requirements to individuals responsible for the creation of documentation. Ensures that the SVTS documentation accurately reflects the equipment and software currently in use in the network.

3.4.3.15 (U) **ENGINEERING SPECIALIST**. Requires associate degree in Engineering, Electronics or a related equivalent technical or vocational education and five or more years applicable work experience. Provides technical support to the fabrication, integration or test effort of electronic, mechanical or software systems. Maintains equipment, lab or shop floor. May be responsible for meeting program team objectives and supporting quality improvement programs. Solves problems of limited scope and complexity. Designs electronic software or electro-mechanical subsystems or components. Verifies electronic software or electro-mechanical products. Assists engineering staff in building and testing prototypes or modified electronic equipment and systems. Performs functional testing, debugging and repairs of electromechanical products. Installs, repairs, modifies or performs preventative maintenance of equipment and other products.

3.4.3.16 (U) **SENIOR ENGINEERING SPECIALIST** Requires associate degree in Engineering, Electronics or a related discipline, technical or vocational education and eight or more years applicable work experience. Provides technical support in the fabrication, integration or test of electronic, mechanical or software systems. Responsible for meeting program team objectives and supporting quality improvement programs. Solves problems of moderate scope and complexity. Designs electronic software or electro-mechanical subsystems or components. Verifies electronic software or electro-mechanical products. Assists engineering staff in building and testing prototypes or modified electronic equipment and systems. Performs functional testing, debugging and repairs of electromechanical products. Installs, repairs, modifies or performs preventative maintenance of equipment and other products. Plans day-to-day production within established goals. Develops production plans and schedules. May include leading other exempt and non-exempt employees.

3.4.3.17 (U) **LEAD ENGINEERING SPECIALIST**. Requires associate degree in Engineering, Electronics or a related discipline, technical or vocational education with ten or more

years applicable work experience. Uses advanced technical expertise and problem solving resolution in the fabrication, integration or test of electronic or mechanical systems. Provides technical support to other engineering specialists or technicians either by reviewing their work or providing general technical leadership. Works on problems of unusual complexity. Responsible for meeting program team
objectives and supporting quality improvement programs. Designs electronic software or electro-mechanical subsystems or components. Verifies electronic software or electro-mechanical products. Assists engineering staff in building and testing prototypes or modified electronic equipment and systems. Performs functional testing, debugging and repairs of electromechanical products. Installs, repairs, modifies or perform preventative maintenance of equipment and other products. Makes recommendations on budgetary needs for headcount, equipment, and travel. May lead small groups of exempt and non-exempt employees.

3.4.3.18 (U) **SENIOR EQUIPMENT INSTALLER.** Requires associate degree in technical discipline or equivalent and five years related experience. May require certifications on various assembly functions. Works on variety of complex electronic or mechanical Sub-assemblies/assemblies, or computer set-ups. Complete knowledge of variety of applicable tools, hardware, software and processes. Mentors, assists and trains lower level technicians. Handles emergency and critical maintenance and installation assignments. May allocate resources and coordinate the flow of work assignments. May perform work in variety of environments, including labs, field sites or customer offices. Completely understands applicable specifications, standards and terminology. Interfaces directly with engineers and customers. Technical work involves various activities associated with fabricating and/or ensuring proper functioning of an electronic or mechanical sub-assembly/assembly, or computer set-up; this may involve activities such as assembly, installation, troubleshooting, aligning, administration (i.e. system administration).

3.4.3.19 (U) **DRAFTING TECHNICIAN**. Works closely with design originators, preparing drawings of unusual, complex, or original designs which require a high degree of precision. Performs unusually difficult assignments requiring considerable initiative, resourcefulness, and drafting expertise. Assures that anticipated problems in manufacture, assembly, installation, and operation are resolved by the drawing produced. Exercises independent judgment in selecting and interpreting data based on knowledge of the design intent. Although working primarily as a drafter, may occasionally interpret general designs prepared by

others to complete minor details.

3.4.3.20 (U) **PROGRAM ANALYST**. Requires Bachelors degree in Business Administration or a related field with two years experience in budget development and a working knowledge of contractual documents. Responsible for detailed financial and administrative activities such as budgeting, reporting, estimating, analysis, etc. for moderate sized programs, organizations or proposals. Performs cost/schedule variance analysis and provides resulting recommendations. Participates in budget preparation and monitors expenses. Prepares or assists in the preparation of cost-to-complete projections. Assists in preparing estimates. Interprets and implements customer requirements for moderately complex cost proposals. Excludes personnel whose primary responsibility is cost accounting or financial analysis.

3.4.3.21 (U) **MATERIALS SPECIALIST**. Requires associate Degree or higher in business administration or related field.**??? ?**Requires 2 years of general experience. Performs a variety of routine and/or low dollar value buying/purchasing tasks involving materials, supplies or services. Reviews purchase regulations, and places orders with approved suppliers. May evaluate bids, select and/or recommend suppliers and negotiate price, delivery, quality and service. Follow up on all awards until completion of order. May assist in negotiations for major purchases by developing or compiling statistical information and gathering other data as required. Coordinates with the accounting department as required to resolve questions on supplier’s invoices.

3.4.3.22 (U) **MATERIEL ADMINISTRATOR**. Requires two years of experience in purchasing a variety of materials, supplies and services. Evaluates bids, selects and recommends suppliers and negotiates price, delivery, quality and service. Follows up on all awards until completion of order. Negotiates and settles with suppliers regarding damage claims, rejections, losses, return of materials, over-shipments, cancellations and engineering changes. Conducts supplier site visits and rates them as to production capability, performance and delivery.

3.4.3.23 (U) **SENIOR MATERIEL ADMINISTRATOR**. Requires a Bachelors degree in Business Administration or a related field with a minimum of four years experience. Responsible for purchasing a variety of complex or technical materials, supplies or services. Evaluates bids, selects and recommends suppliers and negotiates price, delivery, quality and service. Follows up on all awards until completion of order. Negotiates and settles with

suppliers regarding damage claims, rejections, losses, return of materials, over-shipments, cancellations and engineering changes. Conducts supplier site visits and rates them as to production capability, performance and delivery. May provide work leadership for lower level employees.

3.4.3.24 (U) **SUBCONTRACT MANAGER.** A Bachelors degree is required with a minimum of eight years relevant work experience in Business Administration or equivalent. Responsible for the procurement of major, complex subcontracts including management of cost, schedule and performance parameters. Manage activities related to the procurement of materials, services, parts, components, subassemblies and equipment. Develop procurement policies and procedures. Negotiate major subcontracts involving large dollar volumes, complex terms or critical program implications. Exercise judgment in selecting methods, techniques and evaluation criteria for achieving goals and objectives. Provide supervision and training of staff to ensure proper understanding/application of job skills.

3.4.3.25 (U) **PROGRAM ADMINISTRATOR**. Requires a bachelor's degree in business administration or related field and 8 years of experience. Performs a broad spectrum of functions related to analyzing and evaluating the program including assisting the Program Manager in planning, implementing, controlling, and coordinating work efforts. Analyzes project data (financial, staffing, and schedule) to determine the status of budget execution and adherence to schedules. Anticipates or identifies possible deficiencies or problems, and determines alternatives for corrective actions. Analyzes technical plans, fiscal history, and fiscal performance to ensure efficient utilization of resources and to ensure consistency with established policy and management objectives. Identifies potential or actual problem areas, and recommends corrective actions. Evaluates alternatives for corrective actions in terms of their effect on the project and on the overall utilization of resources (financial and staff). Develops and recommends adjustments in resource utilization to resolve problems and to provide balanced project objectives. Ensures that Contract Data Requirements products (CDRL items) are in compliance with the applicable Data Item Descriptions (DIDs), are of high quality, and are submitted on time. Analyzes all invoices submitted to the government to ensure that they are correct and that they accurately reflect the work actually done during the billing period. Takes appropriate actions to correct any discrepancies noted.

3.4.3.26 (U) **ASSOCIATE PROGRAM ADMINISTRATOR**. Serves as the assistant to the Program Administrator in the performance of all of the duties described for that person, and performs work under the direction of the Program Administrator. Collects data,

performs analyses, identifies actual or potential problems, and determines possible alternatives for correcting problems. Ensures that all paperwork products (CDRL items, invoices, etc.) are satisfy the requirements, are of high quality, and are submitted on time.

3.4.3.27 (U) **PROJECT COORDINATOR or SECRETARY**. A high school diploma with 3 years related experience is required. Performs variety of administrative support. Answers, screens, routes phone calls; takes appropriate action as necessary. Distributes or routes mail, packages and paperwork. Completes standard forms and paperwork. Prepares standard packages of information or documents. Researches and gathers standard and defined information as required. Creates and maintains appropriate logs, inventories, filing (hard or soft), status reports/tracking. Performs standard financial duties as required, including generating special check requests, administering petty cash fund and tracking charges and expenditures against budget. Prepares documents under general guidance. Generates standard reports in varying formats. May schedule meetings, trips, shows, or other events, including arranging accommodations, tickets and other reservations and preparing and distributing itineraries, tickets and other pertinent information. May maintain one or multiple calendars. Performs other duties as required.

3.4.4 (U) **RIGHT TO RESTRICT ACCESS**. The Government reserves the right to restrict any contractor employee's access to the Hub or Nodes or to direct the contractor to remove any employee from this contract based on security or safety violations.

3.5 (U) **SECURITY**. The Contractor shall comply with the security requirements (OPSEC and COMSEC) listed on the DD Form 254 to ensure information and documentation is protected and shall comply as well with the applicable provisions of the Secure Video Teleconferencing System (SVTS) Network Security Manual (NSM).

3.5.1 (U) **SECURITY CLEARANCES**. In order to gain regular access to SVTS sites and perform maintenance on SVTS equipment, Contractor Personnel will require a personnel security clearance of TOP SECRET, and favorable determination of eligibility for access to Sensitive Compartmented Information (SCI). A favorable determination of eligibility occurs when a formal determination has been made that the individual meets the national reliability standards in Director of Central Intelligence Directive (DCID) 1/14, "Minimum Personnel Security Standards and Procedures Governing Eligibility for Access to Sensitive Compartmented Information." The individual concerned may or may not have

received a formal access approval for a specific category of SCI. The only security clearances that will be acceptable will be interim or final Top Secret and a favorable determination of eligibility for access to SCI granted by Defense Industrial Security Clearance Office (DISCO) and the Defense Intelligence Agency, respectively. Under no circumstances will an employee be allowed to perform SVTS site maintenance without at least an interim Top Secret security clearance/SCI access approval.

3.5.1.1 (U) **POSITION SENSITIVITY**. DOD 5200.2-r, DOD Personnel Security Program, requires DOD military and civilian personnel, as well as DOD consultant and contractor personnel, who perform work on sensitive automated information systems (AISs), to be assigned to positions which are designated at one of two sensitivity levels (ADP-I or ADP-II). These designations equate to Critical Sensitive and Non-Critical Sensitive. The Government has determined that all positions associated with work on this contract are ADP-I, Critical Sensitive. The contractor shall assure that individuals assigned to work on this contract have completed the appropriate forms.

The required investigation will be completed prior to the assignment of individuals to sensitive duties associated with the position. The contractor shall forward their employee clearance information (completed SF 85P, Questionnaire for Positions of Public Trust, and two DD Forms 258 (Fingerprint cards) to: DISA Industrial Security Division (D16); ATTN: Personnel Security (D162); 5111 Leesburg Pike, Suite 100; Falls Church, VA 22041-3206.

DISA retains the right to request the removal of contractor personnel, regardless of prior clearance or adjudication status, whose actions, while assigned to this contract, clearly conflict with the interests of the Government. The reason for the removal will be fully documented in writing by the Contracting Officer. When and if such removal occurs, the contractor shall, within 60 working days, assign qualified personnel to any vacancies thus created.

3.5.2 (U) **EXCEPTIONS**. Individuals who are not specifically assigned to SVTS, or do not hold TOP SECRET clearance based on

the criteria contained in DCID 1/14, may be granted access to an SVTS facility for extraordinary reason for one occasion. Access by such personnel will be held to an absolute minimum, consistent with the operations needs of the SVTS network and in accordance with locally established procedures. These individuals must be U.S. citizens, must be escorted at all times by a host agency individual with a TOP SECRET clearance based on the criteria contained in DCID 1/14, and may not use the console equipment. The additional requirements outlined in the following subparagraphs strictly apply as stated.

3.5.2.1 (U) **SVTS MAINTAINERS**. The contractors assigned as maintainers of the SVTS network must meet the access requirements in paragraph 3.5.1. Additionally, SVTS maintainer will require full-time visual contracts with host agency personnel with a TOP SECRET clearance based on the criteria contained in DCID 1/14.

3.5.2.2 (U) **SVTS SITE PREPARATION**. Individuals involved in the preparation of a site prior to the arrival of SVTS equipment must meet the access requirement in paragraph 3.5.2. No clearance is required.

3.5.2.3 (U) **SHIELDED ENCLOSURE INSTALLERS**. Individuals involved in the installation of SVTS shielded enclosures must meet the access requirements of paragraph 3.5.2. In addition to being escorted by a host agency individual with a TOP SECRET clearance based on the criteria contained in DCID 1/14, shielded enclosure installers must be U.S. citizens, pass national agency check, and be supervised by a coworker with at least a SECRET clearance.

3.5.2.4 (U) **EQUIPMENT DELIVERY**. Individuals involved in the loading, transportation, and delivery of SVTS equipment prior to operation must meet the requirement of paragraph 3.5.2. Additionally, these individuals must possess at least a SECRET clearance.

3.5.2.5 (U) **SYSTEM INSTALLERS**. Personnel performing SVTS installation and testing must be U. S. citizens, be cleared at least TOP SECRET, have a background investigation current within 5 years. In addition, all work must be performed under the supervision of a contract employee knowledgeable of the work being performed and holding a TOP SECRET clearance based on the criteria contained in DCID 1/14.

3.5.2.6 (U) **NON-SVTS MAINTENANCE AND EMERGENCY PERSONNEL**. Uncleared service personnel, such as electricians, custodians, and carpenters, performing non-SVTS maintenance, and doctors,

emergency medical teams, and firefighters will be granted access as necessary. These individuals will meet the requirements of paragraph 3.5.2. Emergency personnel will be escorted, if possible, and all practical steps should be taken to secure the facility, including shutting down the system and covering classified material. None of these procedures, however, should impede or delete entry of emergency personnel.

3.5.3 (U) **COMPUTER SECURITY**. The contractor shall follow the requirements outlined in Section 7 of the SVTS NSM.

3.5.3.1 (U) **SOFTWARE PERSONNEL.** All contractor personnel involved in the design, development or installation of SVTS-specific software must hold, as a minimum, a SECRET clearance.

3.5.3.2 (U) **SOFTWARE DEVELOPMENT**. All software designed specifically for the SVTS network must be developed in a SECRET environment under strict configuration management in accordance with the Configuration Management Plan. Printed listings of code will be classified and marked "SECRET.≅

3.5.4 (U) **SCHEDULE FOR OBTAINING CLEARANCES**. The contractor shall hold or apply for security clearances within 10 working days after receipt of the contract. The contractor shall be responsible for obtaining clearances including all required fees, IAW the applicable regulations, for its employees. Access to government facilities shall be restricted to the contractor's personnel and other personnel as deemed necessary to comply with the requirements of this contract.

3.5.5 (U) **GENERAL REQUIREMENTS**. The contractor must comply with all government requirements regarding security procedure/ clearance, wearing of badges, access lists, safety procedures, etc. The contractor shall coordinate through the COR to obtain facility control badges for contractor personnel.

3.5.6 (U) **FACILITY REQUIREMENTS**. The contractor shall possess or obtain a facility clearance at the security classification level as specified in the DD Form 254 attached hereto. The contractor shall comply with all appropriate security regulations in handling classified materials and in the production of documentation. The contractor shall submit all requests for classified information to the Government for verification of "need-to-know" and subsequent processing.

3.5.7 (U) **CONTRACTOR SECURITY POINT OF CONTACT**. The contractor shall designate a person to assume responsibility for all security matters. This person shall be identified in the

personnel list.

3.5.7.1 (U) The designated person shall provide overall supervision, administration and coordination of security matters dealing with the SVTS contract IAW References 1A, 1B, 2A, and 2B in Appendix A.

3.5.8 (U) **CONTRACTOR SECURITY PROGRAM**. The contractor shall establish a program to safeguard and protect classified or unclassified/sensitive material in its custody IAW applicable government regulations.

3.5.9 (U) **PHYSICAL SECURITY**. The contractor shall establish and maintain a positive physical security program consistent with applicable government security documents covering all contractor's activities.

3.5.9.1 (U) The contractor shall be responsible for safeguarding all Government property provided for contractor use.

3.6 (U) **CONFIGURATION MANAGEMENT**.

3.6.1 (U) The contractor shall follow the Government’s Configuration Management and Software Management Plan, which is described in Appendix G. The contractor shall follow the software configuration management requirements and Software Configuration Management and Software Product Standards of the MIL-STD-498. The contractor shall provide a Software Development Plan (CDRL S001) IAW MIL-STD-498 for Government approval.

3.6.2 (U) The contractor shall follow the Configuration Management general requirements in accordance with MIL-STD-973, paragraph 4 and subparagraphs except that paragraphs 4.3.2 and 4.3.3 do not apply.

3.6.3 (U) The contractor shall provide a Configuration Management Plan in accordance with MIL-STD-973, paragraph 5.2.1 and Appendix A.

3.6.4 (U) The contractor shall establish and maintain configuration identification in accordance with MIL-STD-973, paragraph 5.3.1.

3.6.5 (U) The contractor shall select and recommend potential configuration items in accordance with MIL-STD-973, paragraph 5.3.2.

3.6.6 (U) The contractor shall establish and implement a

developmental configuration management process in accordance with MIL-STD-973, paragraph 5.3.3 and subparagraphs.

3.6.7 (U) The contractor shall maintain configuration baselines in accordance with MIL-STD-973, paragraph 5.3.4 and subparagraphs.

3.6.8 (U) The contractor shall establish an engineering release system in accordance with MIL-STD-973, paragraphs 5.3.5, 5.3.5.1, and Appendix B.

3.6.9 (U) The contractor shall assign unique identifiers for configuration items and their configuration documents in accordance with MIL-STD-973, paragraph 5.3.6 and subparagraphs.

3.6.10 (U) The contractor shall implement a configuration control function in accordance with MIL-STD-973, paragraph 5.4.1.

3.6.11 (U) The contractor shall follow the requirements for engineering changes in accordance with MIL-STD-973, paragraph 5.4.2.

3.6.12 (U) The contractor shall follow the engineering change process in accordance with MIL-STD-973, paragraph 5.4.2.1.

3.6.13 (U) The contractor shall follow the administrative requirements in accordance with MIL-STD-973, paragraph 5.4.2.2 and subparagraphs, and Appendix D.

3.6.14 (U) The contractor shall follow the requirements for Specification Change Notices in accordance with MIL-STD-973, paragraph 5.4.6 and subparagraphs, and Appendix F.

3.6.15 (U) The contractor shall follow the configuration control procedures (short-form) in accordance with MIL-STD-973, paragraph 5.4.8 and subparagraphs, and Appendices D and E.

3.6.16 (U) The contractor shall follow the configuration status accounting procedures in accordance with MIL-STD-973, paragraph 5.5 and subparagraphs, and Appendices H (as tailored in SOW paragraph 3.6.16.1 below), I and J.

3.6.16.1 (U) The contractor shall provide an information management system fulfilling the requirements of MIL-STD-973, Appendix H, paragraph H.5.1.1 and Tasks 101, 102, 103, 104, 105, 106, 107, and 111.

3.6.16.2 (U) The contractor shall provide active change

processing information fulfilling the requirements of MIL-STD-973, Appendix H, paragraph H.5.1.2 and Tasks 201, and 202.

3.6.16.3 (U) The contractor shall provide detailed approved change implementation activities fulfilling the requirements of MIL-STD-973, Appendix H, paragraph H.5.1.5 and Tasks 411, 413, 414, 415, and 416.

3.6.16.4 (U) The contractor shall provide an active configuration of units in the field fulfilling the requirements of MIL-STD-973, Appendix H, paragraph H.5.1.6 and Tasks 502, and 503.

3.6.17 (U) The contractor shall follow the configuration audit procedures in accordance with MIL-STD-973, paragraph 5.6 and subparagraphs, except that subparagraph 5.6.2 does not apply.

3.6.18 (U) The contractor shall update the SVTS baseline documentation by providing change pages for existing documentation that reflects new SVTS hardware and software. The baseline documentation is:

3.6.18.1 (U) Hardware and facilities documentation:

a. Engineering and Installation Plans

b. Government-Furnished Equipment/Government-Furnished Manuals

c. COTS equipment descriptions

d. External ports interface documents

e. Functional Specification

f. Cable Diagrams

g. Racks elevation

h. Operation & Maintenance Manual

3.6.18.2 (U) Software documentation:

a. Software Installation Manual

b. System Interface Specifications

c. Software Program Specifications for the HCP, NCP, UCT, and Data and Systems Utilities

d. Software Program Maintenance Manual

e. Network Controller Manual

f. System Controller Manual

g. Technical Controller Manual

h. Hub Operations Manual

i. Node Operations Manual

j. Node Training Manual

k. Hub Training Manual

l. SVTS Technical Manual

m. Quick Reference Guide
n. Program Documentation for the SVTS Support System

3.6.19 (U) The contractor shall update the existing Hub operations computer-based training (CBT) system. The system is comprised of COMPAQ 100 MHZ multimedia workstation and a NEC 19" color monitor. The system's software code is written in TENCORE, a computer-aided training language. The contractor shall maintain the CBT software and hardware. The existing code will be provided by the Government.

3.7 (U) **GOVERNMENT FURNISHED EQUIPMENT (GFE) AND SERVICES**.

3.7.1 (U) **EQUIPMENT**.

(1) EMI Test Sets. The list of equipment is included in paragraph 4 of Appendix I.

(2) Software Development Facility. The list of equipment is included in paragraph 5 of Appendix **C.**

(3) Maintenance Spares Inventory. A set of spares will be provided by the Government. The set will consist of the spares inventory remaining at the end of the current maintenance contract. A partial list of the spares inventory, as of 16 June 1997, is included in Appendix H. After contract award, the contractor shall review the list and shall provide to the government a list of any additional items that the contractor deems essential for accomplishing the maintenance task. The government will review the list and will furnish those items it considers reasonable. The contractor shall be responsible for maintaining the spares inventory at the level (quantity and quality) supplied by the Government; this set of spares will constitute the required spares inventory. The required spares inventory listing (CDRL M006, “Spare Parts List”) may be modified by Task Orders. At the end of the contract, the contractor shall return to the Government, the full set of spares.

(4) All current GFE equipment is Y2K compliant. All GFE provided under this contract will also be Y2K compliant.

3.7.2 (U) **DOCUMENTATION**. All documents listed in Appendix A will be provided to the Contractor.

3.8 (U) **DE&I FACILITY.** The government will provide the hardware and software for the Design, Engineering, and Integration (DE&I) facility, which includes the Software Development facility (SDF).

The DE&I facility provides a secure (up to Secret) climate-controlled environment, desk space, all hardware and software required to support three full SVTS nodes and a HUB, to include COMSEC controlled crypto equipment. It is used for SVTS system design, prototyping, integration, testing, and reproducing problems detected in the field. The software support environment provides development and integration tools associated with software engineering, system documentation and configuration management of multiple SVTS baselines. The DE&I shall also be used to reproduce problems reported in the field so the maintenance and repair of operational SVTS components can be expedited.

3.9 (U) **YEAR 2000 COMPLIANT**. Year 2000 (Y2K) Acompliant≅ means information technology that accurately processes date/time data (including, but not limited to, calculating, comparing, and sequencing) from, into, and between the twentieth and twenty-first centuries, and the years' 1999 and 2000 and leap year calculations. Furthermore, Year 2000 compliant information technology, when used in combination with other information technology, shall accurately process date/time data if the other information technology properly exchanges date/time data with it. All current/existing SVTS information technology is Year 2000 compliant. Any information technology developed by and/or acquired by the contractor that will interface with existing SVTS information technology must be Year 2000 compliant. Specifically, when acquiring new information technology that will be required to perform date/time processing involving dates subsequent to 31 December 1999, the contractor shall (a) ensure that the information technology be Year 2000 compliant; or (b) ensure that non-compliant information technology be upgraded to be Year 2000 compliant prior to the earlier of (a) the earliest date on which the information technology may be required to perform date/time processing involving dates later than 31 December 1999, or (b) 31 December 1999.